

# PERFORMANCE SPECIFICATION SHEET

SWITCHES, SENSITIVE, SPDT, PLUNGER,  
4 AMPERES, HERMETICALLY SEALED CONTACTS, UNSEALED PLUNGER

This specification is approved for use by all Departments  
and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this  
specification sheet and the issue of the following specification listed in that issue  
of the Department of Defense Index of Specifications and Standards (DODISS)  
specified in the solicitation: MIL-PRF-8805

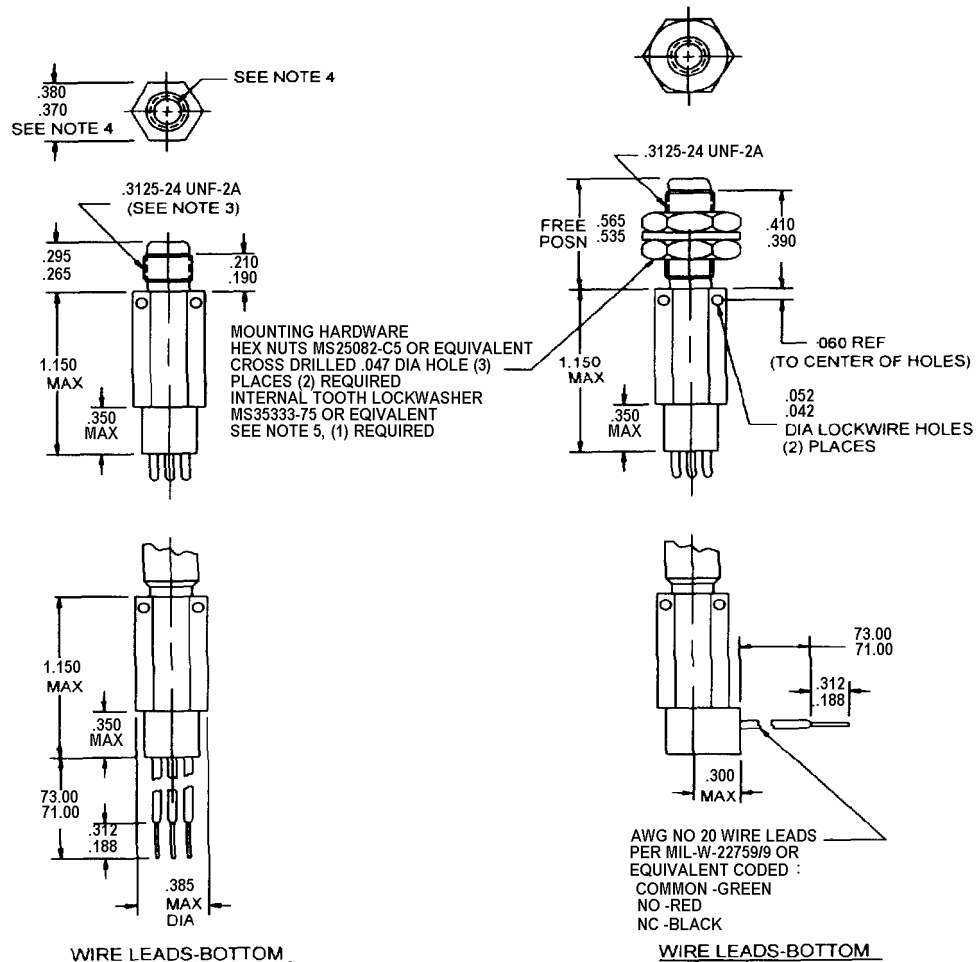
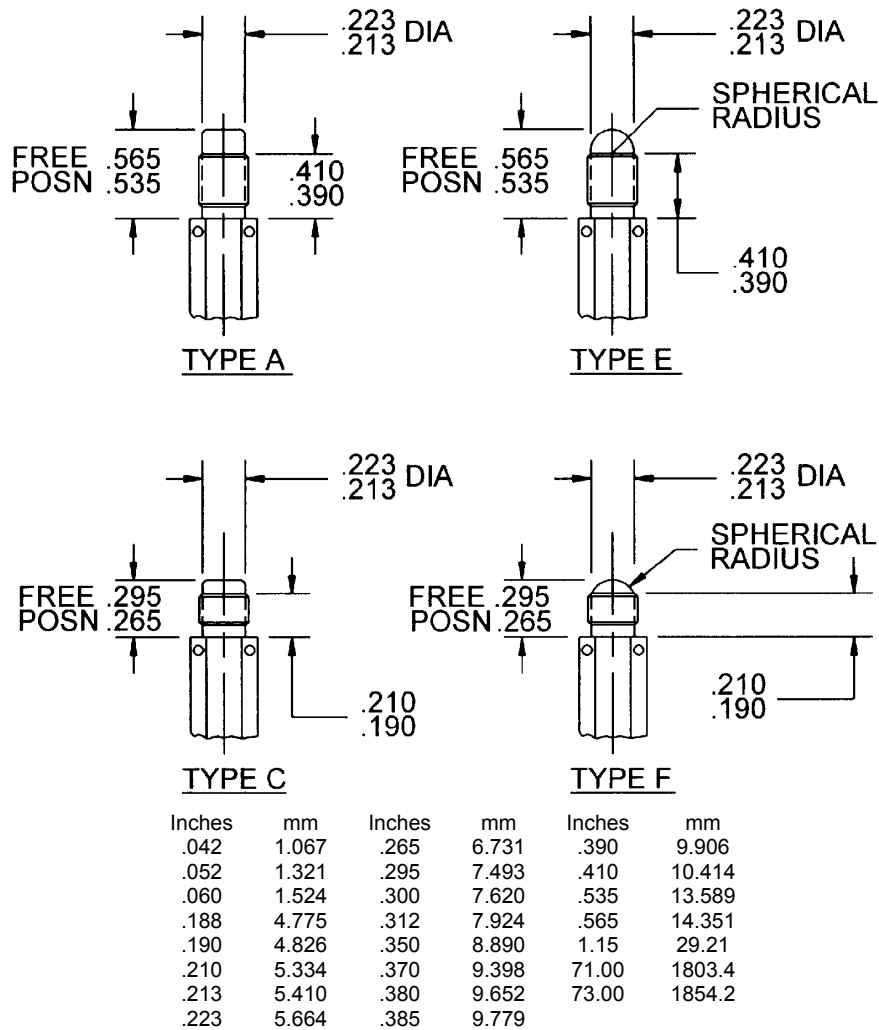


FIGURE 1. Dimensions and configuration.



## NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Mounting hardware not supplied on types C and F.
4. Body dimension on switches is  $.375 \pm .005$  ( $9.53 \pm .13$  mm) across the flats and the button diameter is  $.218 \pm .005$  ( $5.54 \pm .13$  mm).
5. Alternative base metals and protective finishes, as approved by the qualifying activity, may be utilized for lock washer material. Dimensions shall be in accordance with referenced hardware specifications.
6. MS35333-75 has been cancelled and replaced by NASMS35333-75. The existing military part identification numbers have been retained in the NASM document.

FIGURE 1. Dimensions and configuration – continued.

MIL-PRF-8805/72K

REQUIREMENTS:

Dimensions and configurations: See figure 1.

Enclosure design: 5 (hermetic). Basic switch shall be hermetically sealed M8805/68-022 listed on QPL-8805. Plunger is unsealed.

Temperature characteristic: 2 (- 65°C to + 125°C).

Shock type: M (100 g, test condition I, method 213 of MIL-STD-202).

Vibration grade: 3 (10 Hz to 3,000 Hz swept sinusoidal ).

Operating characteristics:

Actuating force: 30 ounces maximum at standard temperature and pressure (21°C and 14.7 psia).

Releasing force: 4 ounces minimum at standard temperature and pressure (21°C and 14.7 psia).

Movement differential: .005 inch (0.13 mm) maximum.

Pretravel: .010 inch (0.25 mm) maximum

Overtravel:

Type A and E: .125 inch (3.18 mm) minimum.

Type C and F; .060 inch (1.52 mm) minimum.

Contact resistance: .040 ohm + 0.011 ohm per lead per foot.

Dielectric withstanding voltage:

Sea level and 70,000 feet: 1,050 V rms (terminal to case), 800 V rms (terminal to terminal).

Seal test: Not required.

Mechanical endurance: 50,000 cycles.

Electrical endurance: 4 amp load: 25,000 cycles

Intermediate current: 25,000 cycles.

Low level: 25,000 cycles.

Electrical ratings: see table I.

Short circuit: 20 times rated resistive load (MS3320-7 ½ or equivalent, used for circuit protection).

Weight: 0.6 ounce +0.1 ounce per lead per foot.

MIL-PRF-8805/72K

Qualification:

Group submission: See table II.

Military Part or Identifying Number (PIN): See tables III and IV.

Table I. Electrical ratings.

Load	Sea level and 70,000 feet (28 V dc) (Amperes)
Resistive	4
Inductive	1
Lamp	2

Table II. Qualification.

Inspection	Basic Switch	Other switch samples	Extent of approval
Qualification inspection table of MIL-PRF-8805, groups I through VI inclusive (seal test not required)	M8805/72-038 (all sample units)	M8805/72-033 through – 037, -039, -040 (2 sample units each):  Visual and mechanical inspection only	All

Table III. PIN's and configurations.

PIN <sup>1/</sup>	Electrical Endurance Cycles @ Resistive Load Ratings	Type of Actuating Mechanism	Terminals
M8805/72-033	4 Amp	A	Wire leads – bottom
M8805/72-034		C	Wire leads – bottom
M8805/72-035		A	Wire lead – side
M8805/72-036	25,000	C	Wire lead – side
M8805/72-037		E	Wire leads – bottom
M8805/72-038		F	Wire leads – bottom
M8805/72-039		E	Wire lead – side
M8805/72-040		F	Wire lead - side

<sup>1/</sup> PIN's -001 through -032 have been canceled and are no longer procurable. Use PIN's -033 through -040.

Table V. Substitution information for canceled PIN's. <sup>1/</sup>

Inactive for new design PIN's M8805/72-		Substitute PIN's M8805/72-
4 Amp	7 Amp	4 Amp
015	025	033
016	026	034
017	027	035
018	028	036
021	029	037
022	030	038
023	031	039
024	032	040

<sup>1/</sup> The canceled PIN's are no longer procurable.  
Substitute, PIN configurations are interchangeable and  
are rated at 4 amperes for 25,000 cycles..

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:  
Army - CR  
Navy - EC  
Air Force - 11  
DLA - CC

Preparing activity:  
DLA - CC  
  
(Project 5930-1760)

Review activities:  
Army – AR, AV, MI  
Navy – AS, MC, OS, SH  
Air force – 19, 99